

PATENT COOPERATION TREATY

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

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| Applicant's or agent's file reference 214247/RV/jn | FOR FURTHER ACTION <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small> | |
| International application No. PCT/NL2004/000885 | International filing date (day/month/year) 17/12/2004 | (Earliest) Priority Date (day/month/year) 19/12/2003 |
| Applicant PAHEBO BEHEER B.V. | | |

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the International search was carried out on the basis of the International application in the language in which it was filed, unless otherwise indicated under this item.

☐ The International search was carried out on the basis of a translation of the International application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the International application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

4. With regard to the title,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

WELL COOLER

5. With regard to the abstract,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this International search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 4

☐ as suggested by the applicant.

☒ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/NL2004/000885

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The disclosure relates to a well cooler (3) for cooling a cooling medium of a driving unit on a ship (1), such as a marine motor, by means of outboard water (8), which well cooler (3) can be placed in a well space (2) present in the ship (1), which lies at least partially below the outboard water level and which is in open communication with the outboard water (8), the well cooler (3) comprising at least one cooling element (4) for the cooling medium, which extends into the well space (2) and which is surrounded by outboard water (8) during operation, and the ship (1) furthermore being provided with a cathodic corrosion protection system (10). The object of the disclosure is to provide a well cooler (3) of the above kind which on the one hand exhibits and retains an effective cooling efficiency, and which on the other hand is not affected by stray current corrosion, which reduces the life span of the well cooler. According to the disclosure, the well cooler (3) is provided with means (14) that prevent the cooling element (4) from being affected by stray current corrosion.

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INTERNATIONAL SEARCH REPORT

International Application No.
PC. 2004/000885

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F01P3/20 F01P11/06 C23F13/02 B63H21/38 B63J2/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F01P C23F F28D F28F B63H B63J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| A | WO 01/25086 A (BLOKSMA B V ; BLOKSMA WALTER (NL)) 12 April 2001 (2001-04-12) abstract; claims 1,4; figure 1 page 2, line 35 - page 3, line 2 page 3, line 30 - line 36 page 4, line 21 - line 37 | 1 |
| A | EP 1 233 159 A (BLOKSMA B V) 21 August 2002 (2002-08-21) abstract; figure 1 paragraphs '0015!', '0017!', '0018! | 1 |
| A | PATENT ABSTRACTS OF JAPAN vol. 0186, no. 55 (M-1721), 12 December 1994 (1994-12-12) & JP 06 255578 A (ICHIRO YAMAZAKI), 13 September 1994 (1994-09-13) abstract; figures ----- -/-- | 1,9,10 |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *A* document defining the general state of the art which is not considered to be of particular relevance
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- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
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- *Y* document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *G* document member of the same patent family

Date of the actual completion of the international search

23 May 2005

Date of mailing of the international search report

01/06/2005

Name and mailing address of the ISA

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Fax: (+31-70) 340-3016

Authorized officer

Häusler, F.U.

INTERNATIONAL SEARCH REPORT

Int. Application No.
PCT/NL2004/000885

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|-----------------------|
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| A | PATENT ABSTRACTS OF JAPAN vol. 0080, no. 67 (C-216), 29 March 1984 (1984-03-29) & JP 58 217681 A (NIPPON KOKAN KK), 17 December 1983 (1983-12-17) abstract; figure 1 | 1,9,10 |
| A | US 6 261 439 B1 (POLIAKOV ALEXEY V ET AL) 17 July 2001 (2001-07-17) the whole document | 1 |
| A | PATENT ABSTRACTS OF JAPAN vol. 2000, no. 13, 5 February 2001 (2001-02-05) & JP 2000 281176 A (MORIMATSU SOGO KENKYUSHO:KK), 10 October 2000 (2000-10-10) abstract; figures | 1,3,5,6 |
| A | NN.: "Copper-nickel alloys, properties and applications (TN 30)" STAINLESS STEEL WORLD, 'Online! September 1982 (1982-09), XP002294405 Retrieved from the Internet: URL:http://www.stainless-steel-world.net/p df/12007.pdf> 'retrieved on 2004-08-27! page 5, right-hand column, line 19 - line 35 page 13 page 17 | |
| T | SONKE HANS & WILMS MARC: "Scheepstank pest - Microbiele corrosie leidt tot perforatie ballasttanks" 'Online! XP002294406 Retrieved from the Internet: URL:http://home.zonnet.nl/sonkej/corrosion /htm/microbielecorrosie/artikelmic.pdf> 'retrieved on 2004-08-27! the whole document | |
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| A | TULLMIN M: "Stray Current Corrosion - Basic theory" 'Online! 2001, XP002294408 Retrieved from the Internet: URL:http://www.corrosion-club.com/sttheory .htm> 'retrieved on 2004-08-27! the whole document | |
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INTERNATIONAL SEARCH REPORT

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PCT/ NL 2004/000885

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| T | <p>NN.: "Corrosion Basics" Online! XP002294409 Retrieved from the Internet: URL: http://home.zonnet.nl/sonkej/corrosion/htm/basics.htm > 'retrieved on 2004-08-27! the whole document</p> <p>-----</p> | |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.
PCT/JP2004/000885

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|----|---------------------|--|--|
| WO 0125086 | A | 12-04-2001 | NL 1013224 C2 AU 1063401 A WO 0125086 A1 | 09-04-2001 10-05-2001 12-04-2001 |
| EP 1233159 | A | 21-08-2002 | NL 1017403 C2 EP 1233159 A1 | 20-08-2002 21-08-2002 |
| JP 06255578 | A | 13-09-1994 | NONE | |
| JP 58217681 | A | 17-12-1983 | NONE | |
| US 6261439 | B1 | 17-07-2001 | NONE | |
| JP 2000281176 | A | 10-10-2000 | JP 3061793 B2 | 10-07-2000 |

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(PCT Article 18 and Rules 43 and 44)

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/NL2004/000885

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INTERNATIONAL SEARCH REPORT

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|--|---|---|
| International Application No. PC. / ...2004/000885 | | |
| A. CLASSIFICATION OF SUBJECT MATTER IPC 7 F01P3/20 F01P11/06 C23F13/02 B63H21/38 B63J2/12 | | |
| According to International Patent Classification (IPC) or to both national classification and IPC | | |
| B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 F01P C23F F28D F28F B63H B63J | | |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched | | |
| Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, PAJ, WPI Data | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
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| -/-- | | |
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| "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family | | |
| Date of the actual completion of the international search 23 May 2005 | | Date of mailing of the international search report 01/06/2005 |
| Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl. Fax: (+31-70) 340-3016 | | Authorized officer Häusler, F.U. |

INTERNATIONAL SEARCH REPORT

Int. Application No.
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| A | TULLMIN M: "Stray Current Corrosion - Basic theory" 'Online! 2001, XP002294408 Retrieved from the Internet: URL:http://www.corrosion-club.com/sttheory .htm> 'retrieved on 2004-08-27! the whole document | |
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| WO 0125086 | A | 12-04-2001 | NL 1013224 C2 AU 1063401 A WO 0125086 A1 | 09-04-2001 10-05-2001 12-04-2001 |
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| US 6261439 | B1 | 17-07-2001 | NONE | |
| JP 2000281176 | A | 10-10-2000 | JP 3061793 B2 | 10-07-2000 |

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